

SECTION AA

A.A.-An Hawaiian term introduced into geological nomenclature by C.E. Dutton, in 1883, and signifying the jagged, scoriaceous, blocky and exceedingly rough surface of some basic lava flows.

AAA-An abbreviation formerly used in chemistry for amalgama or amalgamation.

See **Amalgams** for further details.

Aabam-A term, among alchemists, for the element lead.

Aachen-Aix-la-Chapelle

A-acid-1,7-Dihydroxynaphthalene-3,6-disulfonic acid. An intermediate product for the manufacture of dyes.

Aal-A red dye used in Central India for imparting a permanent colour to the native cotton cloth. It is yielded by the roots of the *Morinda citrifolia*, a small tree belonging to the Rubiaceae, or madder order. Professor T. Anderson has obtained from the aal root a pale yellow crystalline substance which he calls morindin, and this when subjected to distillation yields a crystalline sublimate termed morindonc. It has been found that this morindone is identical with alizarine, one of the colouring principles of madder ; and it is conjectured that the morindin may correspond with ruberythric acid.

Aam-Also Aum, or Awm. A Dutch liquid measure of varying value. The standard or Amsterdam aam is 41 gallons for wine and 38 gallons for oil. The aam is in limited use in other continental countries, in some of which it shrinks to a capacity of 36 gallons. In Germany it is written as ahm, and sometimes, though erroneously ohm.

Aarestrup, Carl Ludwig Emil-Danish physician and poet, born December 4, 1800. A volume of his poems was published in 1838, and another posthumously in 1863. He died in 1856.

Aaron's beard-A vernacular name applied to at least four widely different species of plants. *Saxifraga sarmentosa*, a Chinese plant in common cultivation, with alternate bright and hairy leaves. *Hypericum calycinum*, a dwarf evergreen shrub of southeastern Europe, with conspicuous flowers and clusters of long hair-like stamens, which suggest the name

Linaria Cymbalaria, Ivy leaved toadflax. This is an example of the doctrine of signatures leaking into herbalism. The doctrine of signatures was created by A Bible thumping physician to convert people to their religion and leaving the old ways behind. See Elsewhere in this text for further details about these plants.

The doctrine of signatures had been the bane of herbalists for years. What I am going to say will

anger some people, but I do not give one damn about who I anger. These will be extreme examples of this doctrine. The shape of the plant determines what god meant the plant to be used. The plant's roots looks like a chicken's gizzard so, we can safely assume that the plant is used for gizzard problems. The plant has vines that look like an asshole so, we can use this for hemorrhoids. See what I mean, a plant exists for the plant's sake. Another example is the passionflower, the flower is a reproductive organ and means nothing (John Rush Warren). This doctrine is discussed elsewhere in this text.

Aaron's rod-Mullein or golden rod.

Mullein should not be used for smoking purposes because it contains rotenone and this is used as an insecticide. It is concentrated when the plant is burned, but if it is being used as a cough medicine one should not fear it.

See elsewhere in this text for further details about this plant.

In the same herbals, another plant called Aaron's rod is the common golden rod, this is the problem of using common names in naming a plant. See elsewhere in this text for further details about this plant. This is the problem of using common names because certain localities will use one name for a plant and other localities will use another name for the same plant. The plant below is another example, but use of the common name among herbalists is pretty much standard.

Aaron-*Arum maculatum*. For further details on this family of plants see **Arum** elsewhere in this text.

Scientific name-*Arum maculatum*.

Common names-Cocky baby, cuckoopint, cypress powder, dragon root, gaglee, ladysmock, Portland arrowroot, starchwort, adder's root, Lords and Ladies, Friar's cowl, Kings and Queens, bobbins, Parson and Clerk.

Botanical description-tuberous rootstock is poisonous when fresh, but it can be eaten if dried out or sufficiently cooked. The arrow shaped leaves are poisonous. It blooms In May to June, and they trap insects that the plant uses as food.

Medicinal properties and usage-Acrid (fresh plant material), diaphoretic, expectorant. It is mixed with honey for internal usage and in ointments for external usage. It is often used by herbalists to treat bronchitis, asthma, chronic catarrh, flatulence, and rheumatic problems.

Medicinal substitutes-Althea, asafetida, black cohosh, black elder, black poplar, borage, buttercup, celery, coltsfoot, comfrey, common mullien, cypress spurge, dandelion, elecampane, eucalyptus, garden thyme, ground ivy, heather, horehound, jimson weed, lovage, marsh hibiscus, mother of thyme, mountain holly, mullien, pasqueflower, pleursy root, saw palmetto, skunk cabbage, speedwell, sumbul, sundew, white melilot, yellow melilot, white mustard, wild marjoram, yerba santa.

Part of plant used-The rootstock.

Chemical components-Fresh tuber contains a volatile, acrid oil, starch, gum, sugar, and saponin. It also contains an alkaloid that resembles coniine in its properties.

Synthesis of components-Unknown.

Comments-The historical material was difficult to obtain about this plant. The compiler tries to go to the written literature and if it is not in a book then the Internet resources are consulted. If all else fails then I turn to a person, who is an experienced pagan experienced in the old religion and magick.

One book on herbalism that I had the pleasure of reading had several pieces of erroneous information. One piece of information was the acrid nature can be attributed to calcium oxalate and this could be driven off by heat. Calcium oxalate is found in dumb cane and is not volatile. Calcium oxalate cannot be removed by water either only the volatile oils can be removed in this manner. One British herbal calls this plant ramps, but one small problem...this plant is not of the onion family nor does it have the characteristic odor of onion. This is the reason that the binomial names should be used. When should this plant be collected for food or medicinal purposes? First, I would not collect the leaves for medicinal purposes because the leaves contain small amounts of cyanide containing glycosides. The tubers should be dug either in the early spring or autumn and stored in dry sand. The tubers can be stored for about a year. It can also be dried and powdered and stored in bottles. The fresh root may be ground in a mass with gum arabic.

See other headings elsewhere in this book for further information. The root is slightly poisonous and contains an oily alkaloid that acts in a similar manner to coniine, but it is less toxic. See also the other members of Arum elsewhere in this text.

Arum starch was used to stiffen ruffs in Elizabethan times, thus we are given the name starchwort sometimes given as a common name as well as many other common names.

Gerard tells that the starch will chap, blister, and make the hands and skin rough. This may be due to the fact that the starch used was not properly purified and some of the volatile or essential oil was present in the resulting starch. The starch is the main ingredient in the Cyprus powder of the Parisians. Arum tuber starch is used in other parts of the world to remove freckles from the skin. Next exam question for the herbal student. Would a cosmetic used on sensitive parts of the body contain irritating ingredients or irritating oils? No!

Aarzhil mineral water-In the canton of Berne, Switzerland. The chief spring contains chlorides of calcium and sodium, sulphates of lime and soda, oxide of iron, and sulphohydric acid gas. See also **Mineral waters** elsewhere in this text.

SECTION AB

Abaiser-Abasis, spodium arabum.

Ivory black; and also calcareous powder.

Abalak-A formaldehyde-phenol resin used in varnishes.

Abalone-The name given in California to various species of the edible mollusk *Haliotis*. The shell of the animal yields mother of pearl and is used in button making and inlaying.

Abalyn-Methyl esters of abietic acid. A nonsolvent ingredient in nitrocellulose lacquers.

Abamectin-Avernectin. A natural insecticide obtained from *streptomyces avermitilis*. On the toxicity scale in humans, it possesses very little toxicity. It possesses a lethal dose of about 2000 mg/kg body weight or about 2 grams per each kilogram body weight.

Abanet-A girdle shaped bandage.

Abanga-Name given by the inhabitants of St. Thomas to the fruit of a palm tree, the seeds or fruit of which they consider useful in diseases of the chest, in the dose of three or four fruit or seeds, two or three times a day.

Abano, Pietro D'-He was also known as Petrus de Apono or Aponensis, a distinguished physician and philosopher, was born at the Italian town from which he takes his name in 1250, or, according to others, in 1246. After visiting the east to acquire the Greek language he went to study at Paris, where he became a doctor of medicine and philosophy. In Padua, to which he returned when his studies were completed, he speedily gained a great reputation as a physician, and availed himself it to gratify his avarice by refusing to visit patients except for an exorbitant fee. Perhaps this as well as his meddling in astrology caused the charge to be brought against him of practicing magic, the particular accusations being that he brought back into his purse, by the aid of the devil, all the money he paid away, and that he possessed the philosopher's stone. He was twice brought to trial by the Inquisition; on the first occasion he was acquitted, and he died (1316) before the second trial was completed. He was found guilty, however, and his body was ordered exhumed and burned; but a friend had secretly removed it, and the Inquisition had, therefore, to content itself with the public proclamation of its sentence and the burning of Abano in effigy. In his writings he expounds and advocates the medical and philosophical systems of Averrhoes and other Arabian writers. His best known works are *Conciliator differentiarum quae inter philosophos et medicos versantur* (Mantua, 1472, Venice, 1476), and *De Venenis eorumque remediis* (1472), of which French translation was published in Lyons in 1593.

Abanone-Magnesium phospho-tartrate.

Aba-odo-An African term for a mixture of rubber latices, probably from those from *Funtumia elastica* and *ficus vogelii*.

Abarnahas-Magnesia, magnesium hydroxide, magnesium oxide.

Abaremo-Temo-A Brazilian tree, which grows in the mountains, and appears to be a mimosa. Piso relates that the decoction of its bark, which is bitter and astringent, was applied to ulcers of a bad character.

Abarnahas-Magnesia

Abasin-Acetyl adalin, acecarbromal. A trade name for a sedative acetyl-alpha-bromo-alpha-ethylbutyryl carbamide.

Abassi cotton-White Egyptian cotton.

Abatia-The leaves of *Abatia rugosa*, used as a black dye.

Abatis-A type of intrenchment, and one of the oldest. It consists of trees felled, (abatu) and laid side by side in front of the fortification, with the branches directed toward the enemy, the softer twigs being cut off. It thus forms a breastwork to fire over, and is very useful in field works and in the outworks of regular fortifications for retarding the enemy's advance. The larger ends of the branches are secured to the ground by forked pickets.

Abattoir-A slaughterhouse.

Abbe Condenser

Abdallatif-Also known as Abd-UI-Latif, a celebrated physician and traveller, and one of the most voluminous writers of the East, was born in Baghdad in 1162. An interesting memoir of Abdallatif, written by himself, has been preserved with additions by Ibn-Abu-Osaiba, a contemporary.

A.B.D. capsules-These are thick gelatin capsules containing a suspension of vitamin B concentrate in pure fish liver oil (Cod liver oil).

Abdomen-The cavity of the body which contains the stomach and intestines.

Abdomenal aneurysm-Includes aneurysm of the aorta and any of the branches. It is a disease of middle age (wrong, it occurs when a weak spot occurs on a vein or artery and can occur at any age); predominates in the male in the proportion of 8 to 1 (correct); and usually traceable to a strain or to a blow upon the back or abdomen (wrong). The curative treatment of abdominal aneurysm may be considered under three heads; mechanical or by pressure; postural with restricted diet, and medicinal.

Abdomenal dropsy-See Dropsy.

Abdomenal fishes-Abdomenals. This Linnaean arrangement, an order of fishes, including all the osseous (bony) fishes, of which the ventral fins are placed upon and beneath the abdomen, and so behind the pectoral fins. In the system of Culver the name is given to the order of much more limited extent, a subdivision of the malacopterygii, or soft rayed osseous fishes, distinguished by having the ventral fins beneath the abdomen, and not attached to the bones of the shoulder.

Abdomenal rupture-Also known as Hernia. Take place in the navel in both males and females and the scrotum and groin in males. When the bowel lies quietly in the bag, and admits of being

readily put back into the abdomen, the rupture is termed reducible; but irreducible when the contrary. A hernia strangulated when the intestine is, as it were, tied around with a string, so as to prevent the contents of the bowels from passing off, in such a case, inflammation is excited, and alarming, and sometimes fatal, symptoms are to manifest.

The causes of rupture are various; for example, sedentary habits, violent exercise, such as feats of agility, jumping, running, lifting and carrying heavy weights, violent vomiting, straining, laughing, sneezing, and whatever induces extreme action of abdominal muscles. Some parts of the parietes or enclosure of the bowels are naturally weaker than others; especially the inguinal rings, and the umbilicus; and it is of these parts that hernia most frequently occurs; or the abdominal walls may be defectively formed. When a hernia takes place suddenly, there is a sensation of something giving way at the part, and some pain; but in many persons it comes on gradually, and almost imperceptibly, particularly in very debilitated constitutions. The general symptoms of a hernia, when reducible and free from strangulation, are an indolent tumor at some point of the abdomen, frequently descending out of the abdominal ring, or out of the navel, but occasionally from other situations. The swelling often arises suddenly, and is subject to change in size, being smaller when the patient lies down on his/her back, and larger when he stands up or holds his/her breath. It frequently diminishes when pressed, and grows large again when the pressure is removed. Its size and tension often increase after a meal, or when the bowels are flatulent. In consequence of the unnatural position of the bowel, many persons who have rupture are occasionally troubled with colic, costiveness, and vomiting. But sometimes the functions of the intestines suffer little interruption.

But in all cases of ruptures are troublesome and dangerous, and therefore ought to be attended to in time. When a rupture is reducible, return the protruded parts to their original cavity, by gently pressing the protruding tumor, which can be best effected when the patient is lying on his back, with the legs bent, so that the knees may be erect; an attitude which he should always preserve as much as possible. An injection should be given made of gruel, butter, salt, and 5 or 6 drops of laudanum. Folds of linen dipped in ice water should be placed on the tumor and renewed every 15 minutes. Ice also may be applied with good effect. If the case has been delayed too long, use flannels dipped in a warm decoction of bitter herbs, as tansey, wormwood, horehound, hops; these herbs tend to soften the tumor, and facilitate its return. Change the flannels frequently.

Infants are subject to umbilical hernia, or rupture of the navel. It is cured by applying a proper bandage or truss, which, with increasing strength, effects a cure. Particular attention should be paid to the cure of female infants that are ruptured; that they may be free from the complaint when they become adult and pregnant; for then it often recurs from the great distension of the abdomen, &c. During pregnancy, it is often troublesome, but after parturition, if the contents have not contracted any adhesion, they will often return into the abdomen, and may be kept there by a proper bandage. Females subject to umbilical hernia or rupture, should keep their bowels unconstipated, especially if the navel rupture is irreducible; and they should avoid indigestible food.

When the tumor has returned, it should be kept in place by a bandage or truss. By the permanent pressure of a truss upon the opening, the parts are prevented from descending, and a permanent cure is often effected. A truss may be obtained at a surgical instrument maker's.

Dr. Beach, an eminent physician states: "most of the case of strangulated hernia for which an operation is performed, might be cured by proper treatment. In very many of, where an operation has been proposed, the patient recovered by very simple means. I have been called to some, where, at first view, it has seemed impossible to return the protruded viscera without cutting down and dividing the stricture; and yes, by prompt and energetic means, I have succeeded in reducing it." The following directions are founded upon the American practice:

Commence the treatment by giving a dose of castor oil; avoid strong and irritating purgatives. Use injections of an oily nature, as lobelia inflata, a sufficient quantity; infuse in $\frac{1}{2}$ pint of hot water, to which add as much milk or treacle, and a gill of olive or sweet oil. Repeat every hour. This is one of the most powerful relaxants that can be used in this disease. Out of the old herbals and formularies there are external applications. Do not allow yourself to get caught up in the information given here because if a person needs medical help do not hesitate, but some of this information is still worth pondering.

The following are external applications recommended by Dr. Beach:

Steam and foment with bitter herbs (herbs before mentioned). Put the decoction in a tub or pail, and sit over it by means of a narrow board put across it. Place a blanket over the patient. This will cause perspiration and reduce the inflammation. In extreme cases, a warm bath should be taken for some time. An alkaline poultice may be applied over the rupture, Mix slippery elm bark with weak lye, until a poultice of a proper consistence is formed, to be applied tepid and often renewal. The best effects have been produced by this application.

Dr. Reese, of New York, uses sulfuric ether for the reduction or return of hernia. He wets the tumor with the liquid, and then, in order to produce speedy evaporation, blow upon it with a pair of bellows. He states that he has reduced a number of strangulated hernia by this method alone, when they had been doomed to undergo an operation. While these means are being used, manual aid must be used, called taxis, (meaning the replacement of the parts by hand). The positions of the patient requires care and skill. His legs and buttocks should be elevated as high as possible, forming an angle, if possible of 45 degrees. This may be effected by placing the back part of a chair beneath him. His thighs and body should be a little flexed or bent, in order to relax the muscles. The tumor should then be seized and moderate pressure made, in order to return the viscera.

The constant application of a solution of alum in a strong decoction of oak bark-two drachms to a pint-has been recommended by some surgeons for the radical cure of rupture in the groin. It is applied by means of a soft linen, which should be wetted as soon as it becomes dry. In incipient cases this topical remedy, by constricting the parts, may succeed in preventing the escape of the intestine or omentum through the abdominal ring. The compress should for some time be kept on the part, by a bandage or truss with easy springs.

Herbs for the treatment-These are in the form of a compress. Slippery elm, comfrey, american solomon's seal.

Preventative treatment-Many of the older books indicate that the problem should not happen is measures are taken before the problem occurs. This means strengthening the muscles by means of exercise and never lift heavier objects than you can safely handle. The compiler of this information had spoken to several modern physicians for their opinion on this material and they indicated that some of this was good advice. Most back problems and ruptures are caused by foolhardy people either lifting the object in the wrong manner or lifting something beyond their physical capability.

Abdomenal typhus-Typhoid fever.

Abeille-A French word for honeybee.

Abeille, J.-French military surgeon.

Abele-Populus alba.

Abelicea-Logwood.

Abel tree-A name of the white poplar, populus alba.

Abesamum-Wheel grease; fat charged with iron; formerly used as a remedy.

Abestus-Asbestos.

Abhal-An East India fruit obtained from a species of cypress.

Abhel-Abhal

Abiecula-Dwarf fir tree.

Abies Balsamea-Abies Balsamifera, pinus balsamea. The American

Abies canadensis-Pinus canadensis, hemlock spruce. A species of abies in which Canada pitch is produced.

Abies Communis-See Abies excelsa.

Abesum-Quicklime.

Abit-Cerussa or lead carbonate

Abortive-A medicine that has a tendency to produce abortion

Abraikh-Mica; used, when calcined, as a remedy for fevers.

Abathan-Corrupted from Abrothanum.

Abrette-See Hibiscus.

Abric-An obsolete Arabic term for Sulphur.

Abroach-Broached; letting out or yielding liquor, or in a posture for letting out; as a cask is abroach.

Abrotanum-Southernwood. A species of evergreen plants of the genus *Artemisia*.

Absinthe-A liquor much used in France, consisting of alcohol mixed with the volatile oil of wormwood and oil of anise.

Absinthiated-Impregnated with wormwood.

Absinthin-The bitter principle of wormwood.

Absinthium-Wormwood

This name is applied to several species of *Artemisia*, all, however, possessing the same properties. That recognized in the U.S. Pharmacopoeia, and most

Abstergers-Lotions or any application that cleanses or clears away foulness. The term is seldom employed by modern writers.

Absus-An obsolete term for the Egyptian lotus.

SECTION AC

Academy Board-A type of cardboard sheet used as a support for painting, especially in oils. It is made of sheets of paper sized and pressed together, treated with a ground, and sometimes embossed with an imitation canvas grain. Academy board was introduced in about 1850 and because of its relative cheapness was popular in art schools and with amateur painters, although it was also used by professional artists for sketches and studies. It has now largely been superseded by canvas board.

Preparation

Acadialite-An amber-coloured variety of chabasite from Nova Scotia.

Acacia-A genus of elegant trees and shrubs with pinnated leaves.

Acacia Adansonii-A species of acacia said to contribute a portion of the senegal gum

Acacia Albida-A species of acacia which produces the Brittle gum, Salabreda or Sadra beida.

Acatalis-The juniper, named from the abundance of seeds.

Acauticonite-A subspecies of epidote from Norway.

Acerdese-hydrous sesquioxide of manganese.

See Varvicite

Acescency-A tendency to sourness; incipient or slight acidity.

Acetary-An acid pulpy substance in certain fruits, as the pear, inclosed in congeries of small calculous bodies, towards the base of the fruit.

Acetate-A salt formed by the union of acetic acid with any salifiable base.

Acetate of alumina-A salt obtained by the combination of hydrated alumina with acetic acid, or by reaction between sulphate of alumina and acetate of lead.

Acetate of ammonia-Ammonium acetate.

A solution of acetate of ammonia is prepared by saturating diluted acetic acid with carbonate of ammonia. It is also known as spts of mindereri or spirits of mindereri

Acetate of amyl-

A compound of amylen or amylene and acetic acid. Said to possess the power of preventing putrefaction in vegetable substances.

Acetate of Amylic Ether-

A preparation made by distilling a mixture of one part fusel oil, two of acetate of potassa and one of concentrated sulphuric acid. An alcoholic solution of this ether forms the essence of jargonelle pear.

Acetate of copper-Cupri acetas, Crystals of venus.

A salt prepared by dissolving verdigris in acetic acid.

Acetate of lead-Sugar of lead, Plumbi acetas, Sacchrum saturni, Cerussa acetata.

A salt prepared from the oxide of lead and acetic acid. It is a powerful astringent and sedative; in overdoses an irritant poison.

Acetate of magnesia-Magnesia acetas.

A salt prepared by saturating 120 parts of carbonate of magnesia with acetic acid, and

evaporating to dryness.

Acetate of potassa-Diuretic salt, potassa acetas, sal diureticus.

A salt formed by saturating acetic acid with bicarbonate of potassa, filtering, and evaporating to dryness.

Acetate of quinia-A salt formed in the same manner as the acetate of potassa.

Acetate of soda

Acetic aldehyde-Aldehyde.

Acetic anhydride-Anhydrous acetic acid, mesitic alcohol, bihydrate of mesitylene.

Acetic extracts-Extracts prepared with acetic acid as the menstruum

Acetone-Pyroacetic ether, pyroacetic spirit.

A substance consisting of three parts carbon, three hydrogen, and one of oxygen.

Acetose-Sour or acid.

Acetous-Sour of acid.

Acetous acid-Distilled vinegar

Acetum-Vinegar. A sour liquor obtained from many vegetable substances

Achillaea-A genus of plants of the natural order of compositae, having small flower heads (head of flowers) disposed in

Achillini, Alexander-Born in 1463 and died in 1512. A native of bologna, was celebrated as a lecturer both in medicine and philosophy, and was styled as the second Aristotle. He and Mundinus were the first at Bologna to avail themselves of the permission given by Fredrick II, to dissect dead bodies. His philosophical works were printed in one volume folio, at Venice in 1508, and reprinted with considerable additions in 1545, 1551, and 1568. He also wrote several medical works, chiefly on anatomy. The reason above was one of the reasons that medical science was retarded. It was taboo to dissect a human body.

Achras sapota-Chicle gum.

Achromatic glasses-Are so named from being specifically constructed with a view to prevent the confusion of colors and distortion of images that result from the use of lenses in optical instruments. When white light passes through a lens, the different colored rays that constitute it are refracted or bent aside at different angles, and so converge at different foci, producing a

blurred and colored image. To remedy this compound lenses have been devised, which present a well defined image, unsurrounded by colored bands of light. To instruments fitted with lenses of this kind has been given the name achromatic. The celebrated optician, John Dollond, was the first to surmount this practical difficulty, about the year 1757, by use of crown and flint glass.

Achyranthes repens-Forty knot. Decoction of this plant is drunk as a diuretic in dropsy, ischuria, &c.

Scientific name

Common names

Botanical description

Medicinal properties and usage

Part of plant used

Chemical components

Synthesis of components

Comments

Acid-A general term in chemistry, applied to a group of compound substances, possessing certain very distinctive characteristics. All acids have one essential property, viz, that of combining chemically with an alkali or base, forming a new compound that has neither acid nor alkaline characters. The new bodies formed in this way are termed salts. Every acid is therefore capable of producing as many salts as there are basic substances to be neutralized; and the salt forming power is the best definition of an acid substance.

The majority of acids possess the following contingent properties:

1. When applied to the tongue, they excite that sensation which is called sour or acid.
2. They change the blue colors of vegetables to a red. The vegetable blues employed for this purpose are generally the tincture of litmus and syrup of violets, or of radishes, which have obtained the name re-agents or tests. If these colors have been previously changed to a green or blue by alkalis, the acids restore them.

All these secondary properties are variable; and if we attempted to base a definition on any one of them, many important acids would be excluded. Take the case of a body like silica, so widely diffused in nature. Is pure silicious sand or flint an acid or neutral substance? When it is examined, it is found to be insoluble in water, to be devoid of taste, and to possess no action on vegetable coloring matters; yet this substance is a true acid, because when it is heated along with soda or lime, it forms a new body commonly called glass, which is chemically a salt of silicic

acid. Many other acids resemble silica in properties, and would be mistaken for neutral bodies if the salt forming power was overlooked.

Another method of regarding an acid, which is found of great importance in discussing chemical reactions, is to say an acid is a salt whose base is water. This definition is very apparent if we regard what takes place in separating the acid from a salt. In its decomposition the acid would appear to be left without having any substitute for the removed alkali. This is not however the case, as water is found to enter into union instead of the base. Thus every true acid must contain hydrogen; and if this is displaced by a metal, salts are formed directly. An acid is therefore a salt, whose metal is hydrogen. The full importance of the definition of an acid will be learned under the heading **Chemistry**.

Acids-An acid in chemistry, is any electronegative compound, capable of combining in definite proportions with bases to form salts. Most of the liquid acids possess a sour taste, and reddens litmus paper. Acids have been classified by different writers, into organic and inorganic; metallic and nonmetallic; oxygen and hydrogen acids and acids destitute of either of these elements; the names being applied according to the kingdom of nature, or class of bodies to which the radical belonged, or after the element which was presumed to be the acidifying principle. Acids are in various forms; some are gaseous, as carbonic acid; some are liquid, as acetic and nitric acid; others are solid, as citric and oxalic acid; others again under peculiar conditions assume more than one of these forms. Acid, which are soluble or liquid, are corrosive, and more or less poisonous when concentrated. They change vegetable blues to red and neutralize the effects of alkalis on vegetable blues and yellows. Most of the acids are soluble in water in all proportions; they neutralize the alkalis, effervesce with the carbonates, and combine with the bases generally, forming compounds known as salts. The methods for estimating the strength or neutralizing power of acids, as well as the strength of their solutions, will be found under **Acidimetry**.

The names of acids end either in **ic** or **ous**, the former being given to that containing the larger proportion of the electronegative element, or oxygen, and the latter to that containing the smaller quantity. As sulfuric acid, an acid of sulfur containing 3 atoms of oxygen; sulfurous acid, another sulfur acid, contain only 2 atoms of oxygen, the Greek preposition **hypo** is added to that containing the smaller portion, as hyposulfuric and hyposulfurous acids. The prepositions **per** and **hyper**, and the syllable **oxy** are also prefixed to the names of acids when it is intended to denote an increase in oxygen, as hypernitrous acid, perchloric acid, oxymuriatic acid, etc. The prefix **hydro** to the name denotes that the acid combination is with hydrogen, and not oxygen. All strong liquid acids should be kept in glass bottles, furnished with perfectly tight ground glass stoppers; glass vessels should be used in measuring them, and they should be dispensed in stoppered vials. Fluoric acid must be kept in bottles made of lead, silver, platinum, or pure gutta percha, as it acts readily on glass. In the combination of acids and bases to form salts, distinctive terminations are employed to denote the kind of acid present. The name of an acid ending in **ic**, terminates in **ate**; thus sulfate of soda, formed from sulfuric acid and soda. The name of a salt of an acid ending in **ous**, terminates in **ite**; as sulfite of lime, formed from sulfurous acid and lime. The names of compounds by the union of non-metallic, and certain other bodies, with the metals or with each other, terminate in **ide** or **uret**; thus, sulfide or sulfuret of silver, formed of silver and sulfur. In accordance with the scope of this work it has been found advisable to omit a number of acids, both simple and compound, of limited practical use; the selection being

confined to acids of more general utility and adaptation to practical purposes.

Discussion of Lav

Acids, naming organic-It is strange that the scientific community, as a rule, tend to "name to obscure and confuse." This was the same problem as the alchemists obscuring their formulas as to hide them from the church. Most of the organic acids end in **oic**, but what about the other part of the name at the beginning of the acid? This is the name of the parent organic compound. This is a short course on giving these chemicals their names and some of the names had only came about in the past 100 years. When writing this book, a small problem arose, of how to teach a crash course in organic chemistry and nomenclature (naming) and still make it useful for everyone. First, we will concentrate on "straight chain acids or aliphatic (fatty) acids." These will not have any branches to get into the way of naming them. Later on we will add the trees to the landscape and double bonds and other weird things. First, what does the prefix n- mean at the beginning of an acid? This means that this is a straight chain acid at least 3 carbons long. Let us look at the prefixes and the chemical and common names of acids. Do not freak if the name carboxylic acid is at the end because this is normal in naming some acids. First, how long is the carbon chain and what name should be attached to this chain? The length of the chain and the name will be given below as well as three common names.

Acid, abietic-Acid obtained from rosin.

Acid, abric-Acid obtained from jequirity.

Acid, aceric-Found in the juice of the Common English Maple.

Acid, acetic-Acid of vinegar, acetic acid, acetous acid, pyroligneous acid, aceticum acidum.

Acid, acetoacetic-Diacetic acid.

Acid, achilleic-Same as aconitic acid.

Acid, aconitic-This acid is obtained from the leaves and roots of Aconitum napellus and other plants.

Acid, acrylic-Obtained from the oxidation of acrolein.

Acid, Adibasic-Suberic acid.

Acid, adipic-From animal and plant fats by oxidation with nitric acid.

Acid, aerial-Carbonic acid, calcareous acid.

Acid, agaric-A white powder, the active principle of agaricin; used in night sweats.

Acid, agaricic-Same as agaric acid.

Acid, alanthic-Inulic acid.

Acid, Aldepalmitic-Chief component of butter.

Acid, alginic-An organic substance from algae which combines with bases to form soluble and insoluble salts.

Acid, aliphatic-Same as fatty acid. These are straight chains of carbons.

Acid, allantoic-Amnic acid, amniotic acid.

Acid, allanturic-An acid formed from allantoin and dilute nitric acid.

Acid, alloxypoteic-A neutral sulfur compound found in urine.

Acid, aluminic-An acid prepared by heating aluminum hydroxide. It forms compounds known as aluminates.

Acid, amidoacetic-Glycine, glycol, sugar of gelatin, glycolamic acid.

Acid, amidobenzoic-An acid sometimes found in urine.

Acid, amidobutyric-Butalanine.

Acid, amidocaproic-Leucine.

Acid, amidopropionic-Alanine.

Acid, amidosuccinamic-Asparagine., asparaginic acid.

Acid, amidovalerianic-Valine an amino acid.

Acid, aminoacetic-Glycine.

Acid, amnic or amniotic-Allantoic acid.

Acid, angelic-An acid from the roots of archangelica officinalis and anthemis nobilis.

Acid, anisic-An acid obtained from anise.

Acid, ant-Fornic acid, acid of ants.

Acid, antimonic-Antimony pentoxide.

This "acid" yields salts known as antimonates.

Both of the acids of antimony caused a great deal of confusion and this was caused because some chemist early in the century had made a mistake in the formula. He wrote it in his book and the formula was passed around as being accurate. The mistake was not discovered until about 1940, but still hundreds of books had repeated the mistake. The books written in the 1800's had the correct formula, but the problem with the chemist was that he did not reduce the formula to the lowest numbers possible and there was a problem in the calculation of the formula.

Acid, antimonious-Antimony trioxide, antimonious oxide, hypantimonious acid, protoxide of antimony, teroxide of antimony, valentinite, calx of antimony.

This acid forms salts known as antimonites

Acid, antirrhinic-An acid obtained from the leaves of digitalis or foxglove.

Acid, apiolic-The decomposition product of apiole.

Acid, arsenic-Any of the three acids derived from arsenic pentoxide.

Acid, arsenious-Arsenicum album, white arsenic, arsenic blanc, oxide of arsenic, white oxide of arsenic, calx of arsenic, ratsbane, calx arsenici alba, arsenici oxidum album.

Acid, asparaginic-An acid from asparagin.

Acid, aspartic-Same as asparaginic acid.

Acid, atropic-When atropine is heated with concentrated hydrochloric acid to 248 degrees Fahr. to 266 degrees fahr. for several hours or when it is warmed with baryta water to 136 degrees Fahr. it is decomposed into a base related to the pyridines: tropine and, at first, tropic acid, but later atropic acid. Acid, auric-Gold trihydroxide, calx of gold

Acid, azotic-Nitric acid.

Acid, Boracic-Boric acid, acidum boracicum, sal sedativus Hombergi, acor boracicus, sal vitrioli narcoticum, sal volatile boracis, flores boracis.

Acid, bassic-An acid obtained from bassia oil.

Acid bath-This bath is essentially a medicinal bath consisting of acid mixed with water. The acid is a very dilute solution. Acids that the bath may contain may be either mineral or organic acids depending upon the nature and use of the bath.

The acid bath is prepared by adding two pounds of muriatic or hydrochloric acid to 60 gallons of water. A much smaller quantity of the acid is sometimes used, and in some instances vinegar is substituted.

Scott's acid bath is composed of nitromuriatic acid (aqua regia) and water. It should be prepared

in a wooden tub or other material that will not react with the material, and a sufficient quantity of acid used to give the water a sour taste. It is used extensively in India as a remedy for disorders of the liver.

See also **Baths** elsewhere in this text.

Acid, benzuric-Hippuric acid.

Acid, bezoardic-Uric acid, lithic acid.

Acid black-A form of acidic black dye.

Acid, blatic-An acidic diuretic obtained from cockroaches.

Acid, boric-Boracic acid, acid of borax.

This acid occurs in small quantities in volcanic vapors in the region of Tuscany. The boric acid used in pharmacy is made by the reaction of calcium borate with sulfuric acid. Boric acid is obtained in fine crystalline scales. It is a weak acid, sparingly soluble in cold water. It is used as a household antiseptic.

Acid, borocitric-An antiseptic powder, it is a powerful solvent for urates and phosphates.

Acid, borosalicylic-A combination of boric and salicylic acids in molecular proportions.

Acid bricks-Bricks which contain an excess of silica. Used in the lining of furnaces.

Acid, bromic-This is the only known compound of oxygen and bromine. It is prepared by reacting bromine and caustic potash, when much bromide of potassa is formed, accompanied by bromate of potash, a compound of bromic acid and potash. It likewise combines with silver, lead, and mercury, yielding salts, all of which are termed bromates.

Acid, bromobenzoic-Bromobenzoic acid.

Acid bronze-Alloys containing from 82 to 88% copper; 8 to 10% tin; 2 to 8% lead; and from 0 to 2% zinc. One alloy consists of 73.5% copper; 17% lead; 8% tin; and 1.5% nickel. A metal containing 90% copper; 10% aluminum is also known as acid bronze.

Acid burns-If the burn is from sulfuric, nitric, or hydrochloric acid, wash the acid quickly with plenty of water, if it is on the skin surface then treat with a dilute solution of sodium bicarbonate. Follow the directions for treating burns. If severe, call a doctor.

Acid, butyric-an acid obtained from rancid butter. In fact butyric means butter.

Acid, cacodylic-An acid obtained from cacodyle and mercurous oxide; used in treatment of

psoriasis.

Acid, caffeic-An acid obtained from coffee.

Acid, calcareous-Carbonic acid.

Acid, calculous-Uric acid, lithic acid.

Acid, camphoric-This acid is created by the protracted action of hot nitric acid on camphor, the latter is converted to camphoric acid. The camphorates of quinina, morphia, atropia may, according to Bouchardat, be given in the same cases as the valerianates of the same bases.

Acid, capric-This acid is derived from oleic acid.

Acid, caprinic-See capric above.

Acid, caproic-Derived from crude butyric acid.

Acid, caprylic-Derived from butter and coconut oils.

Acid, caprillic-See caprylic above.

Acid, carbamic-This acid is not known in the free state, but it is found in its ammonium salt from the decomposition of proteins.

Acid, carbazotic-Nitropicric acid, picric acid, Welter's bitter, trinitrophenic acid, carbonitric acid.

Acid, carbolic-Phenic acid, coal tar creosote, phenylic acid, hydrated oxide of phenyl, phenol, phenylic alcohol, cresylic acid.

Acid carbonate-A bicarbonate also known as hydrocarbonate. In my old formularies both terms can be found for the same chemical.

Acid carbonate of ammonia-Ammonium carbonate, ammonio-hydric carbonate, ammonium and hydrogen carbonate, bicarbonate of ammonia, monoammoniac carbonate.

Acid, carbonic-Carbon dioxide.

Acid, carbonitric-Carbazotic acid.

Acid, carbonous-Oxalic acid.

Acid, caseic-Lactic acid

Acid, catechinic-Same as catechin.

Acid, catechuic-Same as catechin.

Acid, cathamic-The coloring matter of safflower.

Acid, cathartic-Cathartic acid. The active principle in senna.

Acid, cathartinic-The active principle in senna.

Acid, cerebriic-An acid obtained from brain tissue.

Acid, cerebrinic-An acid obtained from brain tissue, same as cerebriic acid.

Acid, chinovic-Kinovic acid.

Acid, chloracetic-Chloracetic acid. A caustic somewhat similar in its action to nitric acid, producing a rapid and deep cauterization; formed by the action of chlorine on acetic acid, the latter losing one hydrogen, and taking chlorine in its place.

Acid, chlorohydric-Muriatic acid, hydrochloric acid.

Acid, chloric-Chloric acid. This acid is obtained from chlorate salts.

Acid, cinnamic-An acid obtained from storax, tolu etc.

Acid, cinnamylic-Cinnamic acid.

Acid, cretaceous-Carbonic acid, mephitic acid.

Acid, cresylic-Carbolic acid, phenic acid.

Acid, cryptophanic-An acid found in small quantities, in human urine.

Acid, cyanohydric-Hydrocyanic acid, prussic acid.

Acid, cyanuric-This acid is formed from urea and heat. It is also known as pyuric acid.

Acid, cyaurenic-An acid found in dog urine.

Acid, damaluric-A constituent of urine.

Acid, delphinic-Valerianic acid.

Acid, dextrotartaric-Tartaric acid.

Acid, diacetic-An acid found in the urine of diabetic patients.

Acid, diiodosalicylic-An antiseptic and antipyretic powder.

Acid, disulfuric-Fuming oleum, fuming sulfuric acid.

Acid, dithiosalicylic-Its lithium and sodium salts are used as a substitute for salicylic acid.

Acid elixir, Haller's-Consists of 1 part alcohol; and 1 part sulfuric acid by weight.

Acid elixir of vitriol-Aromatic sulfuric acid. It contains tincture of ginger; spirit of cinnamon; sulfuric acid; and alcohol.

Acid, formic-Acid of ants, methanoic acid, formic acid, hydrogen carboxylic acid, aminic acid.

Acid fuchsine-Acid magenta. Prepared by sulfonating magenta, and is a mixture of sodium or ammonium salts of di and trisulfonic acids.

Acid, gallic-Acidum gallicum, gallic acid.

Acid, gastric-Hydrochloric acid.

Acid, hippuric-An acid found in the urine of gramivorous animals. It is found in the urine of humans, especially after benzoic acid is taken.

Acid, hydrocyanic-Prussic acid, hydrogen cyanide.

Acid, hydroparacumaric-An acid that occurs in small quantities in urine.

Acid, hydrothionic-Hydrogen sulfide, sulfuretted hydrogen.

Acid, hypochlorous-A bleaching agent and oxidizer which forms salts called hypochlorites. Bleaching powder or calcium hypochlorite being the most common. Sodium hypochlorite is the constituent in household bleach.

Acid, hyponitrous-Forms salts known as hyponitrites.

Acid, hypophosphorous-Forms salts known as hypophosphites. Well diluted is a stimulant and tonic of the nervous system.

Acidification-To render a solution or material acid.

Acidify-To render acid. For example, Acidify the solution with 30% HCl which means make the solution acid with 30% hydrochloric acid.

Acidimeter-Is an instrument for determining the real strength of a hydrated acid. The most usual form of this instrument is a glass tube graduated into 100 parts, into which an alkaline liquor, the strength which had been determined, is placed. The acid to be tested is of known quantity, and its strength is ascertained by the proportion of liquor necessary for its saturation.

Acidimetry-Estimation of the quantity of an acid contained in a given sample.

The methods used are founded chiefly on the capacity of acids to saturate or neutralize alkaline bases; and, in some of the liquid acids, on specific gravity.

The accuracy of the tests, when saturation is resorted to, depends greatly on the exact point of neutralization, as already remarked under the head of Acetimetry or Acetometry.

The compiler of this book had found several articles on this subject and under both spellings. The proper point is arrived at when the liquid, after being slightly heated, ceases to redden litmus, or does not alter the color of turmeric paper; if it turns the latter brown, too much test liquid has been added, and the operation becomes useless. A good method is to tint either the acid or the test liquid with a few drops of litmus, when the reddish shade will gradually deepen to purple as the point of saturation is approached, and the blue color be restored as soon as that point is reached.

To test the strength of an acid by saturation-

Acid, igasuric-Jatropic acid.

Acid, iodic-Acidum iodicum. This is obtained by boiling iodine with nitric acid; or by decomposing iodate of baryta by dilute sulfuric acid. It is a white, transparent solid, slightly deliquescent and very soluble in water. It has been given with sulfate of quinia in hoarseness, scrofula, incipient phthisis, chronic inflammation, syphilis, &c. Dose 3 to 6 grains or more.

Acidity in beer, to correct-Acidity in beer may be neutralized by chalk, lime, alkalis, &c; but it cannot be totally destroyed without spoiling the liquor.

Acidity in wine, to remedy

Acidity in wine, to test

Acid, jatropic-Jatrophic or igasuric acid.

Acid, kinovatic-Kinovic acid.

Acid, kinovic-

Acid, lactic-Made from milk or grape sugar by lactic acid fermentation.

Acid, linoleic-Found as a glyceride in drying oils.

Acid, lithenic-Uric acid.

Acid, lithic-Uric acid.

Acid, malic-An acid obtained from fruits especially apples.

Acid, malonic-An acid obtained from the beet.

Acid, margaric-Acid formed from cetyl cyanide and alcoholic potash by boiling.

Acid, meconic-An acid found in opium.

Acid, mephitic-Carbonic acid, cretaceous acid.

Acid, molybdic

Acid, monochloracetic-Made by the action of chlorine on acetic acid by boiling.

Acid, muriatic-Hydrochloric acid.

Acid, myristic-An acid found in nutmegs.

Acid, myronic-Occurs as a potassium salt in the seeds of black mustard.

Acid, nanceic-Lactic acid.

Acid, neurostearic-An acid found in brain tissue.

Acid, nicotinic-An acid found in tobacco.

Acid, nitrohydrochloric-A fuming volatile liquid prepared by adding concentrated hydrochloric acid to nitric acid.

Acid, nitromuriatic-A fuming volatile liquid prepared by adding concentrated hydrochloric acid to nitric acid.

Acid, nitropicric-Carbazotic acid.

Acid, nitrosonitric-Fuming nitric acid.

Acid, nucleic-An acid from nuclein.

Acid, nucleinic-Nucleic acid.

Acid, oleic

Acid of alum-Sulfuric acid.

Acid of amber-Succinic acid, acidum succini, acid, succinicum, sal succini, sal volatile succini. This is obtained by mixing coarsely powdered amber with an equal weight of sand, and distilling it by gradually increasing heat; the product is purified by pressing it between bibulous paper, to remove the oil, and then subliming it. It forms colorless, inodorous crystalline scales, soluble in 5 parts cold or 2½ parts boiling water; is fusible and volatile without decomposition.

Acid of ants-Formic acid, formylic acid, aminic acid, methanoic acid, hydrogen carboxylic acid.. For the preparation of this acid see other headings throughout this text. There are ways of chemically making this acid. This acid is difficult to obtain because of government restrictions on its sale.

Acid of apples-Malic acid. Malic acid is very soluble in water, slightly deliquescent, has a pleasant acidulous taste, and when neutralized with the bases, forms a salts called malates. When kept fused for some time at a low heat, it is converted to paramalic or fumaric acid; and when quickly distilled, it yields maleic acid. Malic acid forms with bases malates, maleic acid forms maleates. Take the juice of the fruit of the mountain ash, immediately after it has turned red, but still unripe; heat it to the boiling point, skim, filter, and nearly neutralize with ammonia, and precipitate with a solution of 1 part acetate of lead to every 72 parts juice; filter, and again precipitate with nitrate of lead; allow the whole to stand until it forms a mass of crystals, then well wash, dry, powder, suspend in water, and decompose by a current of sulfuretted hydrogen; again filter, neutralize with ammonia, decolor with animal charcoal, a second time precipitate with nitrate of lead, and decompose the resulting nitrate of lead with

sulfuretted hydrogen; lastly, filter, evaporate, and crystallize.

Mr. Everett proposes the juice of the leaf stalks of garden rhubarb as a source of malic acid. One imperial gallon of this juice contains 11,139¼ grs. of dry malic acid. The stalks should be peeled before pressing out the juice, as the cuticle contains much color. Everett's process is as follows: Neutralize with hydrate of lime, boil and filter, precipitate with nitrate of lead, allow it to stand a few hours, boil, cool, and filter, decompose the precipitate with sulfuric acid, avoiding excess, thrown down the excess lead from the supernatant portion with sulfuretted hydrogen, evaporate and crystallize. Malic acid is also obtained from the juice of apples and several other sorts of fruits.

Acid of arsenic-Arsenic acid. An acid formed by the combination of metallic arsenic with oxygen. It is sour, reddens litmus, and forms salts with bases, which are termed arseniates. By careful evaporation it may be obtained under the form of small grains, but usually has the consistence of syrup, being very deliquescent.

To obtain-Pour 6 parts strong nitric acid on 1 part white arsenic (arsenious acid) in a glass vessel, distill until the solution acquires the consistence of a syrup, then transfer it into a platina crucible, and expose it for some time to a faint dull red heat, to expel the nitric acid, the addition of a little muriatic acid facilitates the process.

Acid of ben-Benzoic acid, flowers of benjamin, flowers of benzoin.

Acid of Benzoin-Acid of ben, flowers of benjamin, flowers of benzoin. It is in the form of white crystalline needles of a silky white luster, possessing an agreeable odor. Benzoic acid fuses at 230 degrees Fahr., is volatile when heated, dissolves sparingly in cold water, with less difficulty in boiling water. The salts are called benzoates.

To obtain-Put coarsely triturated benzoin into an iron pot with a flat bottom, whose diameter is from 6 to 9 inches; the benzoin forming therein a layer of from 1 to 2 inches in depth. The open end of the pot is then covered with a sheet of soft and loose blotting paper, which must be attached to the rim with paste. A cone, formed with strong and thick paper (cartridge paper), is then capped over the top of the pot, including the blotting paper, and this is attached with paste and string. The apparatus, thus prepared, should be placed on the sand bath and exposed from 4 to 6 hours to a gentle heat. After this lapse of time, it may be removed from the sand bath, inverted, and the string detached, then a mass of beautiful white needles of a silky luster, possessing the agreeable odor of benzoic acid will be found in the paper cone.

To obtain anhydrous-Add oxychloride of phosphorus to an excess of benzoate of soda; agitate together, and wash the mixture with boiling water. The anhydrous benzoic acid sinks like a heavy oil, and crystallizes upon cooling.

Acid of borax-Boracic acid, sal sedativus, acidum boracicum, Hombergi, acor boracicus, sal vitrioli narcoticum, sal volatile boracis, and flores boracis. An acid obtained from borax, which was once looked upon as a sedative.

Acid of butter-Butyric acid. A thin, colorless, oily liquid, soluble in water and alcohol; specific gravity of 0.963; boils at 327 degrees Fahr. It may be procured from the butyrate of magnesia by adding a little sulfuric acid in a quantity not quite sufficient to decompose the whole of the butyrate used; filter and distill the clear liquor, when there will be butyric acid, from which the water may be removed by chloride of calcium. It forms butyrates with some bases.

Acid of chalk-Carbonic acid, acid of charcoal.

Acid of charcoal-Carbonic acid, acid of chalk, choke damp (in the gaseous state). For

further details see **Carbonic acid** elsewhere in this text.

Acid of chrome-Chromic acid. This consists of acicular (needle shaped) crystals of a crimson color and an acid metallic taste, deliquescent, and very soluble in water, forming an orange red solution. With the basis (bases) this acid forms chromates. Chromate of lead forms the pigment known as **chrome yellow**.

To obtain-Take 10 measures of cold saturated solution of bichromate of potassa (potassium), mix it with 15 measures of sulfuric acid, and allow the mixture to cool. The chromic acid is deposited in crystals, after decanting (pour off) the liquid, the crystals are placed on a tile to drain, covered with a bell glass.

Acid of cork-Suberic acid.

Acid of cream of tartar-Tartaric acid.

To obtain-On a small scale it is prepared as follows: Dissolve 4 pounds of cream of tartar in 2 gallons of boiling water; add gradually 12 ounces 7 drachms of chalk, and, when the effervescence ceases, add another like portion of chalk, dissolved in 26½ fluid ounces of muriatic acid, diluted with 4 pints of water; collect the precipitated tartrate of lime, and well wash it with water, then boil it for 15 minutes in 8 pints, 1 fluid ounce of dilute sulfuric acid; next filter, and evaporate to a density of 1.38, and set aside to crystallize. The crystals must be dissolved and crystallized a second and a third time.

On the large scale, the decomposition of the tartar is usually effected in a copper boiler, and that of the tartrate of lime in a leaden cistern. This part of the process is often performed by more digestion for a few days. Leaden or stoneware vessels are used as crystallizers. Good cream of tartar requires 26 of chalk and 28.5 of dry chloride of lime for its perfect decomposition. Dry tartrate of lime requires 75% oil of vitriol to liberate the whole of the tartaric acid. A very slight excess of sulfuric acid may be advantageously employed. Some manufacturers bleach the colored solution of the first crystals by treating with animal charcoal; but for this purpose the latter substance should be first purified by digesting it in muriatic acid, and afterwards edulcorating it with water, and exposing it to a dull red heat in a covered vessel. The general management of this manufacture resembles that of citric acid. **Acid of fat**-Sebacic acid.

Acid of fluor-Fluoric acid. This is more strictly hydrofluoric acid, as it is a compound of hydrogen and fluorine. Its combination with bases forms salts known as fluorides or hydrofluorates. The well known

Acid of galls-Gallic acid. When pure, gallic acid forms small feathery, and nearly colorless crystals, which have a beautiful silky luster. Commercial gallic acid has usually a pale yellow color, soluble in alcohol and water. Its aqueous solution decomposes by exposure to the air. It blackens salts of iron. Dissolved in oil of vitriol, it forms a deep, rich, red solution, which, when thrown into water, drops of the gallic acid, deprived of some of its water. Gallic acid forms gallates with bases.

It is not certain that this acid exists as such in nature, or whether it arises from the decomposition of tannic acid. It is usually prepared from galls. Many processes have been devised. Note: This is

the acid needed for the synthesis of mescaline. For further details on gallic acid see **Volume G**.

Obtaining-One of the processes that the compiler of these books had found was using the action of bacteria to break down tannin into gallic acid and the sugar is digested by the bacteria.

Decoction of galls, at will. Expose to the action of air in a loosely covered vessel for some moths; it will grow moldy, and become covered with a glutinous pellicle, and gallic acid will be deposited on the sides of the vessel and under the surface of the pellicle; collect, dissolve, and recrystallize. This is analogous to the process official in the U.S. Ph.

Method 2-Decoction of galls, sufficient; sulfuric acid, sufficient. To precipitate. Wash the precipitate and dissolve by the aid of heat in diluted sulfuric acid, boil for a few minutes, let cool, and collect the crystals.

Gallic acid is a powerful astringent, and has been found useful in hemorrhages and fluxes, as well as in checking night sweats in phthisis. Dose: 5 to 10 grains.

Acid of lemons-Citric acid, oxytricarboxylic acid.

To obtain-Add 4½ ounces of chalk by degrees to 4 pints of lemon juice, heated, and mix; set by, that the powder may precipitate; afterwards pour off the supernatant liquor. Wash the precipitated citrate of lime frequently with warm water; then pour upon it 27½ ounces of diluted sulfuric acid and two pints of distilled water, boil for 15 minutes; press the liquor strongly through a linen cloth and filter it. Evaporate the liquor with gentle heat, and set aside that the crystals may form. To obtain the crystals pure, dissolve them in water a second and a third time; filter each solution, evaporate and set it aside to crystallize.. The preparation of citric acid has become an important branch of chemical manufacture, from the large consumption of this article in various operations in the arts. In conducting this process some little expertness and care are necessary to insure success. The chalk employed should be dry, and in the form of a fine powder, and be added to the juice until it is completely neutralized, and the exact quantity consumed be exactly noted. The precipitated citrate of lime should be well washed with water, and the sulfuric acid diluted with 6 to 8 times its weight of water, and poured upon it while still warm, and thoroughly mixed with it. The agitation must be occasionally renewed for 8 to 10 hours, when the dilute citric acid must be poured off, and the residuum of sulfate of lime thoroughly washed with warm water, and the washings added to the dilute acid. The latter must then be poured off from the impurities that may have been deposited, and evaporated in a leaden boiler, over a naked fire, until it acquires a specific gravity of 1.13, when the process must be continued until a pellicle appears on the surface. This part of the process requires great attention and judgement, as, if not properly conducted, the whole batch may be carbonized and spoiled. At this point the evaporation must be stopped, and the concentrated solution emptied into warm and clean crystallizing vessels, set in a dry apartment, where the thermometer does not fall below temperate. At the end of 4 days the crystals will be ready to remove from the pans, when they must be well drained, redissolved in as little water as possible, and, after being allowed to stand for a few hours to deposit the impurities, again evaporated and crystallized.

Acid of milk-Lactic acid, galactic acid, nanceic acid, caseic acid. This has been recommended as a therapeutical agent in atonic dyspepsia, owing to its being presumed to being one of the gastric

acids secreted in health. It is given either in the form of lemonade or lozenges. The acid is obtained either from milk or from the juice of the red beet. One drachm to three drachms may be taken in the twenty four hours.

This limpid, syrupy liquid, colorless or pale wine color, with a slight odor and very sour taste, is found in sour unprocessed mil, as homogenized and pasteurized milk rots. It is also found in some animal fluids, and in several vegetable juices, especially in that of beet root. It unites with bases to form lactates.

To obtain-Sugar, 6 pounds; tartaric acid, $\frac{1}{2}$ ounce; boiling water, 26 pounds. Mix and set this aside for a few days, then add. Old stinking cheese, 8 ounces well diffused in 6 pounds of curdled acid skimmed milk and three pounds of chalk.

Place in a warm situation, so as to keep the mixture at a temperature of 85 to 95 degrees. Stir often, in eight to ten days it will solidify into a stiff paste of lactate of lime; now add 20 pounds of boiling water, and $\frac{1}{2}$ ounce of caustic lime, boil for $\frac{1}{2}$ hour, and filter through linen;. Evaporate the liquid to the consistence of syrup, and set aside for four days; remove the lactate of calcium, express, agitate with one-tenth its weight of cold water, and express, repeating this operation two or three times. Now dissolve in twice its weight of boiling water, and for every pound of lactate, add three and one half ounces of sulfuric acid diluted with an equal weight of water. Filter the hot solution through a bag, and boil it with one pound and three-eighths of carbonate of zinc, for every pound of sulfuric acid, for a quarter of an hour. Filter whilst boiling hot, and allow it to crystallize; remove these crusts of lactate of zinc, and wash them with cold water. Then dissolve them in seven and one half parts of boiling water, and pass through the solution a current of sulfuretted hydrogen, till the sulfuret of zinc no longer separates. Filter and boil the liquid to expel the excess of sulfuretted hydrogen, and evaporate on a water bath to the consistence of syrup.

Preparation from milk sugar-A solution of ten ounces of milk sugar in nine pints of milk is exposed to the air in a warm place (90 to 100 degrees fahr.), and the free acid neutralized every other day with bicarbonate of sodium. When the solution ceases to become acid, the liquid is boiled and filtered and carefully evaporated to the consistence of a syrup. This is dissolved in alcohol, the sodium precipitated with sulfuric acid, the filtrate neutralized with chalk, and the clear liquid is evaporated to crystallization. The lactate of calcium is either decomposed by the exact quantity of oxalic acid, or it is converted into lactate of zinc, and this further treated as in the previous process.

Acid of mulberry bark-Moroxylic acid.

Acid of potassium carbonate-Potassium bicarbonate.

Preparation-Dissolve 48 ounces of carbonate of potassa in 10 pints distilled water; pass carbonic acid gas through the solution until saturation (the gas may be evolved from chalk and diluted oil of vitriol). Filter and evaporate,, that crystals may form, at a heat not exceeding 160 degrees Fahr.; decant the clear, and dry the crystals.

Acid of saccharine-Oxalic acid.

Acid of silkworms-bombic acid.

Acid of sodium carbonate-Sodium bicarbonate.

Acid of sorrel-oxalic acid, acid of sugar.

Acid of sugar-Acid of sorrel, oxalic acid.

Acid of sulfur-Sulfuric acid, oleum vitrioli, acidum vitriolicum, acid vitrioli dephlogisticatum, oil of vitriol, vitriolic acid, sulphuric acid.

Sulfuric acid is the chemical name of the liquid commercially and properly known as oil of vitriol. It is a dense, colorless, oily liquid, without smell, and intensely acid taste and reaction.

Sulphuric acid, in its free state, is a very rare natural product; although, in connection with base, it is common in animal and vegetable, and abundant in the inorganic kingdom. The only cases in which it is known to occur free are certain American rivers, especially the Rio Vinagre, and in some lakes in Tennessee and in Java, and it is found to be a normal constituent of the saliva of

Dolium galia, a species of small snail found in Sicily. Sulfuric acid may be prepared on a small scale by boiling aqua regia, or in nitric acid, sulfur or pyrites, the sulfur becoming gradually oxidized to sulfuric acid. In order to obtain the acid in pure form, suitable for medical use or medico-legal analysis, it must be redistilled with sulfate of ammonia in a retort containing a few slips of platinum foil, the first and the last portions being rejected. The distillation is attended with violent concussions, partly owing to the high specific gravity of the acid, partly owing to its high boiling point, and this convulsive action is moderated mechanically by the platinum strips. Thus prepared to the directions of the **British Pharmacopæia**, it may be regarded as perfectly pure, presuming that arsenic is not present. The acid is employed in the arts and manufacture for a large number of purposes, as a desiccating agent for use in the laboratory, the development of oxygen gas, and the preparation of salt cake used in the manufacture of carbonate of soda. As a medicine diluted sulfuric acid exerts a strong astringent power. In ordinary diarrhea and in the premonitory diarrhea of cholera, painters' colic, etc., dilute sulfuric acid is of great use, and sulfuric acid lemonade is valuable as a prophylactic against the latter disease. There are two processes by which sulfuric acid is prepared on a large scale: by the distillation of the green sulfate of iron, **Valentine's process**, and by the oxidation of sulfurous acid through the agency of nitric and hypo-nitric acid, likewise discovered by Valentine and universally followed in Great Britain. When the sulfate is employed for producing sulfurous acid, it is placed in an oven under which a small fire is lighted. The fire is allowed to go out after the sulfur has ignited. Above the sulfur is a niter pot containing either nitrate of soda or nitrate of potash, into which sufficient sulfuric acid to cause decomposition is introduced. This decomposition furnishes nitric acid fumes which go over into the chamber along with sulfurous acid, the latter extracting from the nitric acid the additional equivalent of oxygen required for its conversion into sulfuric acid, reducing the nitrous compound from the nitric acid to nitrous oxide, the latter in its converting itself into nitrous acid by the abstraction of two additional equivalents of oxygen from the air that constantly entering the chamber through the burners. The chamber is a large box or room elevated above the ground. The progress of the gases is retarded and promotion of the desired transformations secured by curtains of lead proceeding alternately from the bottom to the top of the chamber and vice versa. The floor of the chamber is covered with water, into which the sulfuric acid falls as it is formed, and when the solution is strong enough it is drawn off. To prevent the waste of nitrous acid when the gases reach the chimney, a tower filled with coke is provided, through which a constant stream of strong sulfuric acid trickles, absorbing the nitrous fumes on their way upward. Suitable burners are employed when iron pyrites is used as the source of sulfurous acid. An important improvement has recently been introduced into the

manufacture of sulfuric acid which consists of passing gaseous sulfurous acid through what is called a "denitrating tower," instead of conducting it from the sulfur or pyrites burners direct to the lead chamber. This has the effect, it is claimed, of purifying the sulfuric acid of nitrogen compounds which are used in the lead chamber, and the concentration of "Chamber acid," without the use of lead pans and coal.

The manufacture of sulfuric acid is very extensive in the United States, where it is used in the production of soda and other commodities. **Acid of vitriol**-Sulfuric acid.

Acid of woodsorrel-Oxalic acid.

To obtain-See **Oxalic acid**.

Acid, osmic-

Acid, oxalic

Acid, palmitic

Acid, pantothenic

Acid, parabanic

Acid, paralactic

Acid, paraminobenzoic

Acid, perchloric

Acid, periodic

Acid, permanganic

Acid, phenic-Carbolic acid, phenylic acid.

Acid, phenylic-Carbolic acid.

Acid, phenylsulfuric-Sulfocarboic acid.

Acid, phlorylic

Acid phosphates-Soda fountain phosphates are a solution of acid phosphate with any of the fruit flavored syrups, omitting the soda foam, as phosphates are served solid. To each gallon of flavored syrup 8 fluid ounces of acid phosphate is added.

Phosphates are straight sodas, to which dashes of solution of acid phosphate have been added. They are usually served in a tall thin glass.

In the newer formularies, cookbooks, and drink books, try to find phosphates and the reader won't. Some of these sodas only your great grandparents would even remember them. These recipes were taken from Newspapers, old formula books, cookbooks, and women's magazines. I think the reader would like a collection of these old sodas, which by the way, are excellent in taste and quality.

Recipe 1-Bone ash, 32 avoirdupois ounces; sulfuric acid, 24 avoirdupois ounces; water, sufficient to make one gallon. Mix the bone ash with 2 pints of water in a glass or earthenware or other container which is not acted upon by the acid; add the acid previously diluted with the remainder of the water and mix thoroughly. Set the mixture aside for 24 hours with occasional stirring, then transfer the same upon a strong muslin strainer and subject the mixture to pressure; avoiding contact with metals; add to the magma some water and drain until 1 gallon of liquid has been obtained, then filter through paper.

Recipe 2-Phosphoric acid, 8 ounces; potassium phosphate, 80 grains; magnesium phosphate, 100 grains; sodium phosphate, 80 grains; calcium phosphate, 240 grains; water enough to make 8 pints.

Recipe 3-Phosphoric acid, 50%, 64 parts; precipitated chalk, 12 parts; calcined magnesia, 1 part; potassium carbonate, 1 part; distilled water, 178 parts. Add the chalk to the acid gradually and then add the magnesia and stir well. Dissolve the potassium carbonate in 9 fluid ounces of water, add the solution gradually to the acid liquor, admix the remainder of the water, set aside for 1 or 2 hours and filter.

Angostura-a popular drink in New York is made by adding 1 teaspoonful of angostura bitters to a regular lemon phosphate, in which a little more than the regular quantity of lemon syrup is used.

Apricot phosphate-Apricot syrup, 96 fluid ounces; peach syrup, 16 fluid ounces; orgeat syrup, 8 fluid ounces; solution of acid phosphate, 8 ounces.

Arctic phosphate-Strawberry syrup $\frac{1}{2}$ ounce; pineapple syrup $\frac{1}{2}$ ounce; vanilla syrup $\frac{1}{2}$ ounce; orange syrup $\frac{1}{2}$ ounce; acid phosphate 3 dashes; cracked or shaved ice $\frac{1}{2}$ glass, and fill with soda water. Place a spoon and two straws in the glass.

Beaux and belles-Draw $\frac{3}{4}$ ounce each of pineapple and orange syrups into a 12 ounce glass, add 2 or 3 dashes of acid phosphate solution, shaved ice, and a tablespoon of ice cream. Shake well, add enough carbonated water to fill the glass, pour from the glass to shaker and serve.

Berry-Half an ounce each of strawberry, raspberry, checkerberry, and lemon syrups. Add a dash of phosphate and fill 10 ounce glass with cold, well carbonated water.

Blood orange-Solution of acid phosphate, 8 fluid ounces; blood orange syrup, sufficient to make a gallon.

Recipe 2-Raspberry juice, 6 ounces; extract of orange, 1½ ounces; fruit orange, ¾ ounces; syrup, 1 gallon; red coloring, as desired. The addition of raspberry juice improves the orange flavor. The acid phosphate (1 dr.) is added when the drink is served.

Bospho-Raspberry syrup, ¾ ounce; orange syrup, ¾ ounce; lemon syrup, 1 ounce; lime syrup, ¼ ounce; solution of acid phosphate, 1 dash; cracked ice, ½ ounce. Mix in a 10 ounce glass and decorate with slices of orange and pineapple, and a maraschino cherry. Serve with a spoon and straws. It might be better for the soda person to keep the syrups called for blended together as a stock syrup. Use 1½ ounces of this to a 10 ounce glass. Add other ingredients.

Acidum, Aceticum-See Acetum and Acetic acid.

Acidum-Acid.

Acidum aceticum-Acetic acid.

Acidum aceticum aromaticum-Aromatic acetic acid.

Acidum aceticum camphoratum-Camphorated acetic acid.

Acidum aceticum dilutum-Dilute acetic acid.

Acidum aceticum e ligno venale-Pyroligneous acid.

Acidum aceticum forte-Acetic acid.

Acidum aceticum scilliticum-Vinegar of squill.

Acidum acetum empyreumaticum-Pyroligneous acid. Pyroligneous acid (specific gravity 1.034) is an impure acetic acid, obtained by a destructive distillation of wood. It contains creasote, empyreumatic oil, etc., and has been employed in gangrene to correct the fetor and to promote the separation of sloughs, and also as an application to unhealthy ulcers.

Acidum acetum fortis-Acetic acid

Acidum acetum glaciale-Glacial acetic acid

Acidum acetum purum-Acetic acid.

acidum acetum scillae-Vinegar of squill.

Acidum acetosellae-Oxalic acid

Acidum acetosum-Acetic acid.

Acidum acetosum camphoratum-Camphorated acetic acid.

Acidum acetyltannicum-Acetyltannic acid.

Acidum agaricum-Agaric acid.

Acidum allantoicum-Allantoic acid.

Acidum amnicum-Amniotic acid.

Acidum amnioticum-Amniotic acid.

Acidum arsenicum-Arsenic acid.

Acidum arseniosum-White arsenic. Arsenious acid is found in shops, in the form of semitransparent or opaque lumps, or in that of heavy white powder. It has no smell, and its taste is slightly acid. It is volatile at a red heat, giving off fumes of a garlic like odor. Extremely poisonous and corrosive, even in minute doses. Dose, 1/60th to 1/12th of a grain.

Acidum arsenosum-Arsenic acid.

Acidum benzoicum-Benzoic acid. Put 1 pound of benzoin into a flat bottomed iron dish on a sand bath, gradually increase the heat, pass the vapors through a sheet of filtering paper into a receiver of thick well sized paper and remove from the latter the benzoic acid from time to time, as long as it sublimes without much empyreuma.

Benzoic acid is in the form of white, feathery hexagonal crystals, when chemically pure having no odor, but usually with an agreeable smell from the presence of oil. The taste is acid and acrid. It is converted into hippuric acid, and voided by the urine when taken by man, and has been recommended in the uric acid diathesis and gout, but does not appear to be of any benefit. It has, however, been serviceable in catarrh of the bladder, and where there is a secretion of granular mucus with phosphates. It is also beneficial as a stimulating expectorant. Dose, 10 to 15 grains.

Acidum benzoylicum-Benzoic acid.

Acidum boracicum-Boric acid, boracic acid. Powdered borax, 40 parts, boiling water, 100 parts. Dissolve and add muriatic acid, 25 parts. Collect the acid, which crystallizes on cooling, on a filter, drain, wash with cold water, and dry at 234 degrees Fahr. If not pure, dissolve and recrystallize.

If sulfuric acid is used it is almost impossible to free the boracic acid from a trace of it. Dose 10 to 60 grains.

Acidum boricum-Boric acid.

Acidum borussicum-Hydrocyanic acid.

Acidum camphoricum-Camphoric acid.

Acidum carbazoticum-Picric acid.

Acidum carbolicum-Carbolic acid, phenic acid, phenylic alcohol, phenol.

It is obtained from fractional distilleries of coal tar. and it is obtained between the temperatures of 300 degrees and 400 degrees, and subsequent purification. It occurs in colorless or white acicular crystals, which fuse at a temperature of about 100 degrees to a colorless, having an odor and a taste resembling creosote, and boiling near 370 degrees. It dissolves freely in alcohol, ether, glycerin, and the essential oils, and requires about 20 parts water for solution; its solution does not affect litmus paper, and coagulates collodion. Its compounds with alkalies are readily decomposed by the acids, including carbonic acid. When 9 parts of it are dissolved in 5 parts alcohol, and mixed with 60 parts water and 1 part sesquioxide of iron, specific gravity 1.34, the mixture assumes permanently a beautiful blue color.

In its pure state it acts as an escharotic; when diluted, its properties are rubefacient anaesthetic, and antiseptic. Taken internally it is carminative and sedative, resembling creosote in its power of allaying gastric irritability. It is best administered largely diluted or in mucilaginous liquids, with some aromatic to correct and cover its odor.

Dose, $\frac{1}{2}$ to 3 grains, twice or three times daily.

Acidum carbolicum crudum-Impure carbolic acid, crude carbolic acid.

Acidum carbolicum dilutum-Dilute carbolic acid.

Acidum carbolicum impurum-Impure carbolic acid.

It is a colorless liquid becoming reddish-brown on exposure, and having the odor and taste of the pure acid, modified by empyrenematic constituents of tar, which should not exceed 30%, by measure of the impure acid, the impurities being nearly insoluble in water. It is used as an external remedy and for disinfecting purposes.

Carbolic acid clay-Clay, 80 parts; impure carbolic acid, 20 parts.

Mix thoroughly. Useful for destroying parasitic insects upon plants, and for disinfecting purposes.

Acidum carbonicum-Carbonic acid.

This stimulating gas is readily absorbed by water, and advantage has been taken of the fact by retaining it in liquid form under pressure. The mineral soda water of the shops is water saturated with carbonic acid gas.

Acidum Catholicon-Acid of sulphur.

Acidum chromicum-Chromic acid. It is obtained by saturating water at the ordinary temperature with bichromate of potassium and pouring two pints of this solution slowly and with constant stirring into three pints of concentrated sulfuric acid. After one or two days the crystals are collected and dried upon porous tiles under a bell glass, to protect them from dust.

It occurs in deep red needles, which are deliquescent, readily soluble in water, and oxidize organic matters rapidly. It is employed as a powerful and convenient escharotic in cancerous ulcerations, and for removing warts and other morbid growths. It may be applied in substance to the moistened part, or in solution. It is never used internally.

Acidum citricum-Citric acid, acid of lemons. This exists naturally in the juices of many fruits; to obtain it pure, boiling lemon or lime juice is saturated with chalk, when carbonic acid is given off, and an insoluble citrate is formed; this is to be washed and decomposed by boiling with dilute sulfuric acid; insoluble sulfate of calcium precipitates, and the citric acid remains in solution and crystallizes on evaporation. To purify, dissolve in water and recrystallize. Dose, 5 to 20 grains.

Acidum debilius-Acetic acid.

Acidum destillatum-Distilled acetic acid.

Acidum gallicum-Gallic acid, acid of galls.

Acidum hippuricum-Hippuric acid.

Acidum hydriodicum-Hydriodic acid.

Acidum hydriodicum dilutum-Dilute hydriodic acid.

Acidum hydrocarbonicum-Oxalic acid.

Acidum hydrochloricum-Hydrochloric acid.

Acidum hydrochloricum dilutum-Dilute hydrochloric acid.

Acidum hydrocyanicum-Hydrocyanic acid.

Acidum hydrocyanicum dilutum-Dilute hydrocyanic acid solution. Ferrocyanide of potassium, 2 ounces; sulfuric acid, 1½ ounce; distilled water, sufficient. Mix the acid with 4 fluid ounces of water, and pour the mixture, when cool, into a glass retort. To this add the ferrocyanide, previously dissolved in 10 fluid ounces of the water. Pour 8 fluid ounces of water into a cooled

receiver, and having attached the retort, distill on a sand bath, with moderate heat, six fluid ounces. Lastly, add to the product, 5 fluid ounces of water, or as much as will render the acid of such strength that 100 grains will be accurately saturated by 12.7 grains of nitrate of silver.

Acidum hydrosulphuricum-Sulfuretted hydrogen, hydrogen sulfide.

Acidum hydrothionicum-Sulfuretted hydrogen.

Acidum hydrothionicum liquidum-Water solution of sulfuretted hydrogen.

Acidum iodicum-Iodic acid.

Acidum jatrophi-Jatrophic acid.

Acidum lacticum-Lactic acid.

Acidum ligneum-Pyroligneous acid.

Acidum ligni pyrooleosum-Pyroligneous acid.

Acidum lignorum empyreumaticum-Pyroligneous acid.

Acidum limonis-Citric acid.

Acidum limonum-Citric acid.

Acidum lithicum-Uric acid.

Acidum kinovicum-Kinovic acid.

Acidum marinum concentratum-Concentrated hydrochloric acid.

Acidum muriaticum-Hydrochloric acid.

Acidum muriaticum nitrosoxygenatum-Nitromuriatic acid.

Acidum nitri-Nitric acid.

Acidum nitricum-Nitric acid.

Acidum nitricum dilutum-Diluted nitric acid.

Acidum oleicum-Oleic acid.

Acidum oxalicum-Oxalic acid.

Acidum oxalinum-Oxalic acid.

Acidum phenicum-Carbolic acid.

Acidum phenylicum-Carbolic acid.

Acidum phosphoricum-Phosphoric acid.

Acidum picricum-Picric acid.

Acidum pneumaticum-Acidum primarum viarum.

Acidum primigenium-Sulphuric acid.

Acidum prussicum-Hydrocyanic acid.

Acidum pyroaceticum-Pyroligneous acid.

Acidum quercitanicum-Tannin.

Acidum quinovicum-Kinovic acid.

Acidum sacchari-Oxalic acid.

Acidum saccharinum-Oxalic acid

Acidum salicylicum-salicylic acid.

Acidum salis culinaris-Hydrochloric acid.

Acidum salis marini-Hydrochloric acid.

Acidum scytodephicum-Tannin.

Acidum septicum-Nitric acid.

Acidum stearicum-Stearic acid.

Acidum succinicum-Succinic acid.

Acidum sulphureum-Sulphuretted hydrogen.

Acidum sulfuricum-Sulfuric acid.

Acidum sulphuricum dilutum-Dilute sulphuric acid.

Acidum sulfuris volatile-Sulfurous acid.

Acidum sulphurosicum-Sulfurous acid.

Acidum tannicum-Tannic acid.

Acidum tartaricum-Tartaric acid.

Acidum tartari essenziale-Tartaric acid.

Acidum tartarosum-Tartaric acid.

Acidum tenue-Acetic acid.

Acidum uricum-Uric acid.

Acidum urolithic-Uric acid.

Acidum valerianicum-Valeric acid or valerianic acid.

Acidum vitriolicum-Sulfuric acid.

Acidum zooticum-Hydrocyanic acid.

Acidum zootinicum-Hydrocyanic acid.

Acies-Steel.

SECTION AD

Adam and Eve-1 ounce of gin; 1 ounce of cognac; 1 ounce of Forbidden fruit; a few drops of lemon juice. Combine with ice and shake. Strain over ice.

Adam and Eve

Scientific name-Aplectrum hyemale.

Common names-Puttyroot.

Botanical description

Medicinal properties and usage-None known.

Part of plant used-Unknown.

Chemical components-This plant contains a great deal of starch.

Synthesis-None of the chemical components had been synthesized. The chemical composition of this plant remains unknown.

Adamant-A term to describe hardness. A legendary stone of impenetrable hardness, formerly sometimes identified with diamond. It possesses several meanings. Diamond, or magnet or loadstone Older texts it was used as a term for aluminum.

See **Diamond** elsewhere in this text

SECTION AE

SECTION AF

SECTION AG

SECTION AH

SECTION AI

SECTION AJ

SECTION AK

SECTION AL

Alabari-Lead

Alacar-Sal ammoniac

Alcone-Brass.

Alcoubrith-Sulphur.

Ales-The name of a compound salt.

Allabor-Lead.

Alki Plumbi-Supposed to be the acetate of lead

Alunite-Alumstone

SECTION AM

Antimicrobial agents-There are many semi-synthetic, synthetic, and natural antimicrobials.

Because the first one was from a mold then all the efforts was concentrated on molds and their properties. The plant world's antimicrobial agents had been used in herbal medicine for centuries, but a word of caution. The pharmaceutical profiles had not been fully worked out.

Most of the older medical books use terms like anti-putrefacients, against putrefaction, antimotility agents, and the like. This indicates to a good herbalist or herbal physician that the plants in question may have antimicrobial activity.

SECTION AN

Antimony trioxide-Flowers of antimony,

See also **Flowers** elsewhere in this text

Argentine flowers of antimony-sesquioxide of antimony.

Arseniuret-A compound of arsenic with a metal, or positive element or radical also known as an arsenide.

Arseniuret of aluminum-Aluminum arsenide.

Arseniuret of indium-Indium arsenide.

Arseniuret of lead-Lead arsenide.

Arseniuret of lithia-Litium arsenide.

Arseniuret of magnesia-Magnesium arsenide,

Arseniuret of nickel-Nickel Arsenide.

Arseniuret of zinc-Zinc Arsenide.

Arseniuretted-Combined with arsenic.

Arseniuretted hydrogen-Hydrogen arsenide, arsine.

Arsenuret-See **Arseniuret**.

Astragalus

Scientific name-Astragalus adsurgens.

Common names-milk vetch, Great Wall astragalus

Botanical description

Medicinal properties and usage-Immunostimulant. These drugs was unknown to 1800s herbal doctors.

Part of plant used-Root.

Chemical components-cycloastragenol, astragaloside I to VIII, and cyclocanthoside, Cycloartane triterpene.

Synthesis-

Comments-There are a few drug companies trying to develop an HIV drug cycloastragenol. It is used in Traditional Chinese medicine as an immunestimulate. Scientific studies done in China suggest that astragalus, when used with angelica, has kidney protective effects. Astragalus also decreases proteins in the urine associated with idiopathic membranous nephropathy membranous Idiopathic (unknown cause) membranous (withing the membranous structures) nephropathy (Kidney Disease) occurs when the immune system attacks the kidneys. Another name for this illness is membranous glomerulonephritis.

Astringent saffron of mars-A preparation formed by exposing subcarbonate of iron to a red heat, whereby it absorbs oxygen, and loses water and carbonic acid.

Azote-Nitrogen

Azotic acid-Nitric acid.

Azotides-Nitrides.